

GenCore version 5.1.4-p5-4578
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ALIGNMENTS

12: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1991.DAT;*
 13: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1992.DAT;*
 14: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1993.DAT;*
 15: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1994.DAT;*
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 18: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1997.DAT;*
 19: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1998.DAT;*
 20: /SIDS2/gcldata/geneseq/geneseq -emb1/NA1999.DAT;*
 21: /SIDS2/gcldata/geneseq/geneseq -emb1/NA2000.DAT;*
 22: /SIDS2/gcldata/geneseq/geneseq -emb1/NA2001A.DAT;*
 23: /SIDS2/gcldata/geneseq/geneseq -emb1/NA2001B.DAT;*
 24: /SIDS2/gcldata/geneseq/geneseq -emb1/NA2002.DAT;*

RESULT 1
 ID AAZ2093
 AC AAZ20593;
 XX
 DT 23-NOV-1999 (first entry)
 XX
 DE Human fibroblast growth factor 98 coding sequence.
 XX
 KW Fibroblast growth factor 98; FGFR98; human; multipotent neural stem cell;
 KW progenitor cell; peripheral neuropathy; aneurotrophic lateral sclerosis;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; dementia;
 KW ischaemic stroke; brain injury; acute spinal cord injury; infection;
 KW nervous system tumour; multiple sclerosis; epilepsy; metabolic disease;
 KW peripheral nerve trauma; retinitis pigmentosa; macular degeneration;
 KW retinal detachment; myocardial infarction; peripheal vascular disease;
 KW renal artery disease; diagnosis; therapy; ss.

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Match Length	Query %	DB ID	Description
1	1570	100.0	1570	20	Human fibroblast
2	1068	65.0	1517	22	Human diagnostic
3	1027.6	65.5	1128	20	Human fibroblast
4	831	52.9	833	21	Human heart specimen
5	805.2	51.3	917	19	Nucleotide sequence
6	805.2	51.3	917	17	Human fibroblast
7	805.2	51.3	.917	22	Human DNA encoding
8	737.6	47.0	1023	22	Mouse fibroblast
9	624	39.7	624	24	Human polynucleotide

PR 09-MAR-1998; 96US-0077411.
 PR 29-APR-1998; 98US-0083553.
 PR 08-MAR-1999; 99US-0264851.
 XX
 PA (CHIR) CHIRON CORP.

XI
 PI Cen H, Garcia PD, Grieshaber U, Kassam A, Lee PP, Pot D;
 PI Gospodarowicz D, Martin K;
 DR WPI; 1999-551410/46.
 P-PSDB; AAY39628.

PX
 PR New polymeric nucleotide encoding a fibroblast growth factor, useful for
 treating peripheral neuropathy, Alzheimer's disease, ischaemic stroke,
 brain or spinal cord injury, nervous system tumours, multiple sclerosis
 or epilepsy -

XX
 PS Claim 1; Page 59-60; 60pp; English.

CC This sequence encodes the human fibroblast growth factor 98 (FGF98) of
 the invention. FGF98 can be used for the isolation, regeneration,
 proliferation, and differentiation of mammalian multipotent neural stem
 cells, progenitor cells and progeny. Primary central (CNS) and peripheral
 nervous system (PNS) cells when treated with FGF98 proliferate, have at
 least a limited self regeneration capacity, and can undergo lineage
 restriction in response to the local environment. The FGF98 sequences can
 be used for providing trophic support for cells in a patient. They be
 used to treat e.g. peripheral neuropathy, amyotrophic lateral sclerosis,
 Alzheimer's disease, Huntington's disease, ischaemic
 stroke, brain injury, acute spinal cord injury, nervous system tumours,
 multiple sclerosis, infection, dementia, epilepsy, peripheral nerve
 trauma or injury, exposure to neurotoxins, metabolic diseases, disorders
 of insufficient blood cells, retinitis pigmentosa, age-related macular
 degeneration, retinal detachment, myocardial ischaemia/infarction,
 peripheral vascular disease, parkinson's disease, Huntington's disease,
 cells produced by treatment with FGF98 are also used to screen drugs and
 growth factors, which may affect development, differentiation, survival
 and/or function of CNS and PNS derived neurons and glia. FGF98 can also
 be used for the production of large amounts of otherwise minor
 populations of cells to be used for generation of cDNA libraries for the
 isolation of rare molecules expressed in precursor cells or progeny;
 CC cells produced by treatment may directly express growth factors or other
 CC molecules.

XX Sequence 1570 BP; 371 A; 488 C; 491 G; 220 T; 0 other;

SQ Query Match 100.0%; Score 1570; DB 20; Length 1570;
 Best Local Similarity 100.0%; Pred. No. 6; e=245;
 Matches 1570; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCCACGGGTGGCGGAGCGCGGGAGCATGAGCCGGGGGCCA 60
 Db 1 CCCCACCGTGTGGGGAGCGGGAGCTGGGGGGGGGGCA 60

QY 61 GACGGAGCGCGGCTGGCGTTGGCGTGAGCCGGGGGGGGGGTGAC 120
 Db 61 GACGGAGCGCGGCTGGCGTTGGCGTGAGCCGGGGGGGGGGTGAC 120

QY 121 CCTGGCCCCAGCACTCCGGCGCGGAGAGCGGAACATGGCTTGAC 180
 Db 121 CCTGGCCCCAGCACTCCGGCGCGGAGAGCGGAACATGGCTTGAC 180

QY 121 CCTGGCCCCAGCACTCCGGCGCGGAGAGCGGAACATGGCTTGAC 180
 Db 121 CCTGGCCCCAGCACTCCGGCGCGGAGAGCGGAACATGGCTTGAC 180

QY 181 CGCGGATGCTGTCCCGACTGAGCGGGAGCCAGCGCTCCAGGACCGGG 240
 Db 181 CGCGGATGCTGTCCCGACTGAGCGGGAGCCAGCGCTCCAGGACCGGG 240

QY 241 GGCGGCCAGAGCTGAGGAGCTTCCSCACGCGCACAGCGCTTGAC 300
 Db 241 GGCGGCCAGAGCTGAGGAGCTTCCSCACGCGCACAGCGCTTGAC 300

QY 301 CGGCCCGAGCCCCCTGGCGCAAGCGAGGGGGAGCGGAGCGGAGCGG 360
 Db 301 CGGCCCGAGCCCCCTGGCGCAAGCGAGGGGGAGCGGAGCGGAGCGG 360

QY 361 CGCTGATGCCGAGGGCGCCCGGAGCGAGCTGCAACCGAGCGAGCG 420
 Db 361 CGCTGATGCCGAGGGCGCCCGGAGCGAGCTGCAACCGAGCGAGCG 420

QY 421 AGCGGCCAGGGAGAGCACAGCGAGCGAGCGAGCGAGCGAGCG 480
 Db 421 AGCGGCCAGGGAGAGCACAGCGAGCGAGCGAGCGAGCGAGCG 480

QY 481 CGGTCGGCCGGCGGAGCGAGCGAGCGAGCGAGCGAGCGAGCG 540
 Db 481 CGGTCGGCCGGCGGAGCGAGCGAGCGAGCGAGCGAGCGAGCG 540

Db 601 CTGTCGTTTCACTACAGCTGCGTGGTCCGGAGGAGAACGGACTTCGGATCCACCGTG 660
 QY 601 CTGTCGTTTCACTACAGCTGCGTGGTCCGGAGGAGAACGGACTTCGGATCCACCGTG 660

Db 661 GAGAACGACGGGGCTGGAGCAGTGGTCCGGAGGAGAACGGACTTCGGATCCACCGTG 720
 Db 661 GAGAACGACGGGGCTGGAGCAGTGGTCCGGAGGAGAACGGACTTCGGATCCACCGTG 720

Db 721 TACAGCCGGACCTGTTGGAAACACATCCAGGTCTGGCCSGAGGACATGGCC 780
 QY 721 TACAGCCGGACCTGTTGGAAACACATCCAGGTCTGGCCSGAGGACATGGCC 780

Db 781 GAGGATGGGAGAACGAGTGTGCGAGCTCTAGTGGAGAACAGACCTGGTAGTCAGTC 840
 Db 781 GAGGATGGGAGAACGAGTGTGCGAGCTCTAGTGGAGAACAGACCTGGTAGTCAGTC 840

QY 841 CGATCAAGGCAAGGAGACGAGGAATTCTACCGCTCTAGTGGAGAACAGACCTGGTAGTCAGTC 900
 Db 841 CGGATCAAGGGAAGGAGAACGGAGTATTCACCTGGCTTAAGTACTCCGGCTGGTAACGGGGCTCCACCAAGAGGGG 900

QY 901 GGGAAACCCGATGGCACCAAGGAGTGTGGTGTACATGAGAACAC 960
 Db 901 GGGAAACCCGATGGCACCAAGGAGTGTGGTGTACATGAGAACAC 960

QY 961 TACACGGCCCTGATGTOGGCTTAAGTACTCCGGCTGGTAACGGGGCTCCACCAAGAGGGG 1020
 Db 961 TACACGGCCCTGATGTOGGCTTAAGTACTCCGGCTGGTAACGGGGCTCCACCAAGAGGGG 1020

QY 1021 CGGCCCGAGAAGGCCCAAGACCCGGAGAACACAGGAGGTCTATTCATGAGGCG 1080
 Db 1021 CGGCCCGAGAAGGCCCAAGACCCGGAGAACACAGGAGGTCTATTCATGAGGCG 1080

QY 1081 TACCCCAAGGGCAACCGGGAGCTTCAGAAGCCCTTCACACAGCGGTGACCAAGAGG 1140
 Db 1081 TACCCCAAGGGCAACCGGGAGCTTCAGAAGCCCTTCACACAGCGGTGACCAAGAGG 1140

QY 1141 TCCCTGCGATCCGGCCACACCTGGCTTAGGCCACCCGGCCGGGGCTTAGGGCG 1200
 Db 1141 TCCCTGCGATCCGGCCACACCTGGCTTAGGCCACCCGGCCGGGGCTTAGGGCG 1200

QY 1201 CCCTGCACACTCACACTCCAGAACATGCTAGAGGAATAATTTCATGAAAT 1260
 Db 1201 CCCTGCACACTCACACTCCAGAACATGCTAGAGGAATAATTTCATGAAAT 1260

QY 1261 AAGGAGAAGACTCTAATTGGTACATGGTTAAAGAGAGACAAAAACTGAAACAAAC 1320
 Db 1261 AAGGAGAAGACTCTAATTGGTACATGGTTAAAGAGAGACAAAAACTGAAACAAAC 1320

QY 1321 TCTGGGGAGGGGTGATAGGATTTCATGGTACATGGTACATGGTACATGGTACAGCAAC 1380
 Db 1321 TCTGGGGAGGGGTGATAGGATTTCATGGTACATGGTACATGGTACATGGTACAGCAAC 1380

QY 1381 CTAGGCAAGGGACTGTAGTCACCCCAAGGGCTGTGTTCTCTCTAGGACAGACAAAC 1440
 Db 1381 CTAGGCAAGGGACTGTAGTCACCCCAAGGGCTGTGTTCTCTCTAGGACAGACAAAC 1440

QY	1441 TCTRAACTCGTCCCCAGAGGAGCTGATGAGAACCAACTTGAGAGCCAAAG	1500	CC	The present sequence for human diagnostic and therapeutic (dithp) cDNA sequence #9 is 1 of 71 (AAS03012-AAS03082) novel sequences described in the invention. The present sequence (Incyte ID No: 237152dec) encodes an extracellular information molecule. The dithp polynucleotides may be used to diagnose a condition disease or disorder associated with human molecules. They can be used to identify the presence of similar nucleic acids. Dithp polynucleotides may be used to generate hybridisation probes for use in chromosomal mapping. Polypeptides (DITHP) encoded by dithp are used to screen for molecules which bind to them and modulate their activity. Dithp polynucleotides can be used for gene therapy of disorders such as severe combined immunodeficiency syndrome (SCID), cystic fibrosis, thalassemia, haemophilia resulting from Factor VIII or IX deficiencies, cardiovascular disorders e.g. familial hypercholesterolaemia (FH), cell proliferative disorders e.g. inflammatory disorders, autoimmune/inflammatory disorders, neurodegenerative disorders, and developmental disorders. The antibodies can be used to analyse protein expression levels.
RESULT	2			
ID	AAS03020 standard; cDNA: 1517 BP.			
XX	AAS03020;			
AC				
XX				
DT	29-AUG-2001 (first entry)			
DE	Human diagnostic and therapeutic (dithp) cDNA sequence #9.			
XX				
KW	Human diagnostic and therapeutic molecule; dithp; gene therapy; thalassemia; cardiovascular disorder; cell proliferative disorder; cancer; neurodegenerative disorder; autoimmune disorder; infectious disorder; inflammatory disorder; Incyte ID number 237152dec; extracellular information molecule; ss.			
XX				
OS	Homo sapiens.			
XX				
PN	WO200121836-A2.			
XX				
PD	29-MAR-2001.			
XX				
PF	19-SEP-2000; 2000WO-US25643.			
XX				
PR	23-SEP-1999; 99US-0155760.			Query Match 68.0%; Score 1068; DB 22; Length 1517; Best Local Similarity 98.9%; Pred. No. 7.6e-164; Matches 1074; Conservative 0; Mismatches 12; Indels 0; Gaps 0;
PR	24-SEP-1999; 99US-0155939.			QY 483 GTCGGGGCGCGGGAGGGACATGTGGAGGCGCTAGAGGCCCGCCCGCTCCCG 542
PR	24-SEP-1999; 99US-0156294.			Db 1 GTCGGGGCGCGGGAGGACATGTGGAGGCGCTAGAGGCCCGCCCGCTCCCG 60
PR	28-SEP-1999; 99US-0156565.			QY 543 CCCAGCGTAGTATCAGGGCCCTGGCGGCGACATGTGGCTGTTACCTCCGCTCT 602
PR	28-SEP-1999; 99US-0156624.			Db 61 CCCAGCGTAGTATCAGGGCCCTGGCGGCGACATGTGGCTGTTACCTCCGCTCT 120
PR	28-SEP-1999; 99US-0156625.			QY 603 GTGCTTCCAGGTACAGGCTGTGGTGGAGGAGACGTGAGCTTCCCATCCACGTTGA 662
PR	24-NOV-1999; 99US-0167410.			Db 121 GTGCTTCCAGGTACAGGCTGTGGTGGAGGAGACGTGAGCTTCCCATCCACGTTGA 180
PR	24-NOV-1999; 99US-0167453.			QY 653 GAACCGAGCCGGCTCGGAGCATGGTGGAGGAAACAGCTGGCTGTACCGCTTA 722
PR	24-NOV-1999; 99US-0167517.			Db 181 GAACCGAGCCGGCTCGGAGCATGGTGGCTAAGCACTGGCTGTACCGCTTA 240
PR	24-NOV-1999; 99US-0167520.			QY 723 CAGCCGGACCAGCAGTGGAAACACATCCAGTCTGGCCAGGATCAGTGGCTGGGGGA 782
PR	24-NOV-1999; 99US-0167542.			Db 241 CAGCCGGACCAGTGGAAACACATCCAGTCTGGCCAGGATCAGTGGCTGGGGGA 300
PR	29-NOV-1999; 99US-0167943.			QY 783 GGATGGGGACAAGTATGCCAGCTCTGGAGACAGACACACTTCGCTGTTAGTCAGTCG 842
PR	30-NOV-1999; 99US-0168197.			Db 301 GGATGGGGACAAGTATGCCAGCTCTGGAGACAGACACACTTCGCTGTTAGTCAGTCG 360
PR	30-NOV-1999; 99US-0168265.			QY 843 GATCAAGGCCAACGAGGAACTCTGCTGAGGAGCTGCTGTTAGTCAGTCG 902
PR	30-NOV-1999; 99US-0168429.			Db 361 GATCAAGGCCAACGAGGAACTCTGCTGAGGAGACAGACACACTTCGCTGTTAGTCAGTCG 420
PR	30-NOV-1999; 99US-0168432.			QY 903 GAAGCCCCATGGACCACCAAGGAGTGTGTCTAGCAGAAGGTTCTGGAGAACAACTA 962
PR	01-DEC-1999; 99US-0168432.			Db 421 GATCAAGGCCAACGAGGAACTCTGCTGAGGAGACAGACACACTTCGCTGTTAGTCAGTCG 480
PR	01-DEC-1999; 99US-0168432.			QY 963 CAGGGCCCTGATGTCGCTGTTAGTACTCGGCGCTGTAGCTGGCTGTACCAAGAGGGCG 1022
PA	(INCYT) INCYTE GENOMICS INC.			Db 481 CAGGGCCCTGATGTCGCTGTTAGTACTCGGCGCTGTAGCTGGCTGTACCAAGAGGGCG 540
XX	Hodgson DM, Lincoln SE, Russo FD, Spiro PA, Banville SC, Shah P, Chalup MS,			QY 1023 GCGGGGGAGGGCCCAGACCGGGAGAACCGAGCAGGAGCTGCTGCTACCAAGAGGGCG 1082
PI	Biratcher SR, Dufour GE, Cohen HJ, Rosen BH, Hillman JL, Jones AL, Yu JY, Greenawalt LB, Panzer SR, Roseberry AM, Wright RJ, Chen W, Liu TF, Yap PE, Stockdreher TK, Amshey S, Fong WT;			Db 541 GCGCGGGAGGCCAACACCGCTGCTGCTACCAAGAGGGCG 600
XX				QY 1083 CCCAAAGGGCACCGGGAGCTTCAAGTACACGACGGTGACCAAGAGGGCG 1142
DR	WPT; 2001-281607/29.			Db 601 CCCAAGGGCACCGGGCTTCAGAGCCCTCAATCACAGACGGTGACCAAGAGGGCG 660
XX				QY 1143 CGCTCGGATCCGCCAACACCGCTGCTGCTACCAAGAGGGCG 1202
PT	Novel diagnostic and therapeutic polynucleotides, used in disease diagnosis and for gene therapy of conditions such as cancer and thalassemia -			Db 661 CGCTCGGATCCGCCAACACCGCTGCTGCTACCAAGAGGGCG 720
XX				
PS	Claim 1: Page 255; 299pp; English.			
XX				

Db 721 CGGCCACATCACCTGCAAGAACACTGCACTAGGAATTTCACATGARATAA 780
 QY |||||||
 XX PT treating peripheral neuropathy, Alzheimer's disease, ischaemic stroke,
 or epilepsy -

Db 781 GGAAAGACTCTTGTGATGTTAAGGAGACAAACTGAAACCAACTC 840
 QY |||||||
 XX Disclosure; Page 59; 60pp; English.

Db 841 TTGGGGGAGGGTGTAAAGGTTATTGTGACTGTAACCCCGATGACAAAGACT 900
 QY |||||||
 XX This sequence encodes the human fibroblast growth factor 98 (FGF98) of
 the invention. FGF98 can be used for the isolation, regeneration,
 proliferation, and differentiation of mammalian multipotent neural stem
 cells, progenitor cells and progeny. Primary central (CNS) and peripheral
 nervous system (PNS) cells when treated with FGF98 proliferate, have at
 least a limited self regeneration capacity, and can undergo lineage
 restriction in response to the local environment. The FGF98 sequences can
 be used for providing trophic support for cells in a patient. They be
 used to treat e.g. peripheral neuropathy, amyotrophic lateral sclerosis,
 Alzheimer's disease, Parkinson's disease, Huntington's disease, ischaemic
 stroke, brain injury, acute spinal cord injury, nervous system tumours,
 multiple sclerosis, infection, dementia, epilepsy, peripheral nerve
 trauma or injury, exposure to neurotoxins, metabolic diseases, disorders
 of insufficient blood cells, retinitis pigmentosa, age-related macular
 degeneration, retinal detachment, myocardial ischaemia/infarction,
 peripheral vascular disease, renal artery disease and wound healing.
 Cells produced by treatment with FGF98 are also used to screen drugs and
 growth factors, which may affect development, differentiation, survival
 and/or function of CNS and PNS derived neurons and glia. FGF98 can also
 be used for the production of large amounts of otherwise minor
 populations of cells to be used for generation of cDNA libraries for the
 isolation of rare molecules expressed in precursor cells or progeny;
 cells produced by treatment may directly express growth factors or other
 molecules.

Db 901 CAGCAGAAGGGCTGTGATGACCAACAGCTTGAGAACCAAAGTC 1442
 QY |||||||
 XX CC
 Db 960 1503 CTTTTCCAAAGGTCTGAAGGAAAAAAAACACAAAAAAACAAAAA 1562
 QY |||||||
 XX CC
 Db 1021 CTTTTTCCAAAGGTCTGAAGGAATCAAAAAAAACAAAGAACNCAA 1080
 QY |||||||
 XX CC
 Db 1563 AAAAA 1568
 QY |||||
 XX CC
 Db 1081 GAGAAA 1086
 QY |||||
 XX CC

RESULT 3

ID AAZ20594
 XX AAZ20594 standard; DNA; 1128 BP.
 AC XX
 DT XX
 DT 23-NOV-1999 (first entry)
 DE Human fibroblast growth factor 98 coding sequence.
 XX
 KW Fibroblast growth factor 98; FGF98; human; multipotent neural stem cell;
 KW progenitor cell; peripheral neuropathy; amyotrophic lateral sclerosis;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; dementia;
 KW ischaemic stroke; brain injury; acute spinal cord injury; infection;
 KW nervous system tumour; multiple sclerosis; epilepsy; metabolic disease;
 KW peripheral nerve trauma; retinitis pigmentosa; macular degeneration;
 KW retinal detachment; myocardial infarction; peripheal vascular disease;
 KW renal artery disease; diagnosis; therapy; ss.
 OS Homo sapiens.

XX
 Key Location/Qualifiers
 PH 609..1091
 FT CDS /*tag= a
 FT /product= FGF98

XX
 PN W09946381-A2.
 XX 16-SEP-1999.
 PF 09-MAR-1999; 99W0-US05235.
 XX
 PR 09-MAR-1998; 98US-0077411.
 PR 29-APR-1998; 98US-0083553.
 PR 08-MAR-1999; 99US-0264851.
 PA (CHIR) CHIRON CORP.
 XX
 PI Cen H, Garcia PD, Grieshammer U, Kassam A, Lee PP, Pot D;
 PI Gospodarowicz D, Martin K;
 XX
 DR WPI; 1999-551410/46.
 DR P-PSDB; AAY39630.
 XX

New polynucleotide encoding a fibroblast growth factor, useful for

SQ Sequence 1128 BP; 197 A; 385 C; 402 G; 144 T; 0 other;

Query Match 65..5%; Score 1027..6; DB 20; Length 1128;
 Best Local Similarity 99..6%; Pred. No. 2..5e-157; Matches 1030; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Matches 1030; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 CCCACCGTCCGGGACGCCGCGGGAGGAGACATGACCCGGGGCCCA 60
 DB 60 CCCACCGTCCGGGACGCCGCGGGAGGAGACATGACCCGGGGCCCA 119
 QY 61 GACGGAGCCGGCTGAGCCTTCGGCTGAGCCCGGCCGACCCGGAGGCTGAC 120
 DB 120 GACGGAGCCGGCTGAGCCTTCGGCTGAGCCCGGCCGACCCGGAGGCTGAC 179
 QY 121 CCCTGGCCCGAGCTCCGGGGGGGGAGGAGC3AACTCGCTTCAGACCCCC 180
 DB 180 CCCTGGCCCGAGCTCCGGGGGGGGAGGAGC3AACTCGCTTCAGACCCCC 239
 QY 181 CGGCATGCTTCGGGACTGAGCGGCGAGCCAGCTCCACGGACCCGGAGGCC 240
 DB 240 CGCGATGCTGCCCCGGACTGAGCGGGCGACGCCACCGACCCGGAGGCC 299
 QY 241 GGCGGCCAGAGCTGAGCCGAGCTTCGGGACCCGGCCAGGGCTCTGACAACGGCTG 300
 DB 300 GGCGGCCAGAGCTGAGCTTCGGGACCCGGCCAGGGCTCTGACAACGGCTG 359
 QY 301 CGGCCCCGAGCCCTGGCGAGCCGGGGGGGGAGGCCCTGGGGAGGCCGGGG 360
 DB 360 CGGCCCCGAGCCCTGGCGAGCCGGGGGGGGAGGCCCTGGGGAGGCCGGGG 419
 QY 361 CGCTGATGCCAGGGAGCTGAGCTTCGGGACCCGGCCAGGGCTCTGACAACGGCTG 420
 DB 420 CGCTGATGCCAGGGAGCTGAGCTTCGGGACCCGGCCAGGGCTCTGACAACGGCTG 479
 QY 421 AGCCGGCGAGGGAGGGAGGCCCTGGCGAGCCGGGGGGGGGGGGGGGG 480
 DB 480 AGCCGGCGAGGGAGGCCCTGGCGAGCCGGGGGGGGGGGGGGGGGGGGGG 539
 QY 481 CGGTCCCGGGCGGGGGGGAGCTGAGCTGGGGTAGGAGCCGGCCCTCCCTC 540
 DB 540 CGGTCCCGGGCGGGGGGGAGCTGAGCTGGGGTAGGAGCCGGCCCTCCCTC 599

QY 1172 AGGCCACCCGGCGGCACACTCAGGTCTGCCACACTCACCTCCAGAAACTG 1231
 QY ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
 Db 661 AGGCCACCCGGCGGCACACTCACCTCCAGGTCTGCCACACTCACCTCCAGAAACTG 720
 QY 1232 CTCAGAGGAATTATTTACATGAAAATAAATAGGAAGAACGCTTATTTGTCACATTTGTT 1291
 Db 721 CTCAGAGGAATTATTTACATGAAAATAAATAGGAAGAACGCTTATTTGTCACATTTGNT 780
 QY 1292 TTAAGAGAGACAAACTGACCACAAACTCTGGGGGAGGGTATAAGGA 1344
 Db 781 TTAAAGAGACAAACTGACCACAAACTCTGGGGGAGGGTATAAGGA 833

RESULT 5
 AAV29532 DT 24 - SEP - 1998 (first entry)
 ID AAV29532 standard; cDNA; 917 BP.
 XX AC AAV29532;
 XX DT Nucleotide sequence of fibroblast growth factor homologue zFGF-5.
 XX KW Human; fibroblast growth factor homologue; zFGF-5; cardiac cell; antagonist; antibody; heart failure; stroke; hypertension; cancer; bone defects; arthritis; cardiac myocyte hyperplasia; ds.
 XX OS Homo sapiens.
 XX Key Location/qualifiers
 FH 1..624 FT /tag= a
 PT /product= "Fibroblast growth factor homologue zFGF-5"
 PN W09816644-A1.
 XX PD 23 - APR - 1998.
 XX PT 16 - OCT - 1997; 97WO-US18635.
 XX PR 16 - OCT - 1996; 96US-0028646.
 XX PA (ZYMO) ZYMOGENETICS INC.
 PT Bukowski TR, Conklin DC, Deisher TA, Hansen B, Holderman SD;
 PI Raymond FC, Shepard PO;
 XX DR WPI; 1998-251291/22.
 DR PR-PSDB; AAW57413.
 XX PT New fibroblast growth factor homologue, zFGF-5 - used to develop products for treating e.g. heart failure, stroke, hypertension, bone defects or cancers, arthritis, or wounds
 XX PS Claim 1; Pages 73-74; p 94pp; English.

This is the nucleotide sequence of the novel fibroblast growth factor homologue zFGF-5, used in the method of the invention. The zFGF-5 polypeptides can be used (optionally ex vivo) for enhancing the proliferation of cardiac tissue cells. The polypeptides, nucleic acids, antagonists, and antibodies can also be used in the treatment of disorders such as heart failure, stroke, hypertension, bone defects, cancer, arthritis, or wounds. The products can also be used in the study of cardiac myocyte hyperplasia and regeneration, to target delivery of agents to the heart and for detection and diagnosis. The recombinant cells can be used to produce the protein.

XX Sequence 917 BP; 244 A; 258 C; 252 G; 163 T; 0 other;

QY Best Local Similarity 51.3%; Score 805.2; DB 19; Length 917; Matches 907; Conservative 0; Mismatches 3; Indels 80; Gaps 2;

Db 550 ATGATTCAGGGCCCTCGCTGACTTGCTGTGTTTCACTTCTGCTGCTGCTC 609
 Db 1 ATGATTCAGGGCCCTCGCTGACTTGCTGTGCTGCTGCTC 60
 QY 610 CAGTTAGGGCTGTTGCGGAGAGCTGGACTTTCGCTCATCCACCGGGAGAACCCG 669
 Db 61 CAGGTCAGGGCTGTTGCGGAGAGCTGGACTTTCGCTCATCCACCGGGAGAACCCG 120
 QY 670 ACGCGSGCTCGGAGCATGGAGCGGTAAAGCAGCTGGCTTGACAGCTGGCTGAGCCG 729
 Db 121 ACGCGGGCTCGGAGCATGGAGCGCTGAGCCGTAAGCAGCTGGCTGAGCCG 180
 QY 730 ACCAGTGGAAACACATCCAGTCAGTCTCGGCCAGATEAGTGGCCGCCAGAGATGG 789
 Db 181 ACCAGTGGAAACACATCCAGTCAGTCTGGCCGCCAGAGATGG 240
 QY 790 GACAAGTAGTGCCTCAGTCAGTCAGTCTGGCCGCCAGAGATGG 849
 Db 241 GACAAGTAGTGCCTCAGTCAGTCAGTCTGGCCGCCAGAGATGG 300
 QY 850 GGCAGAGGAGCGGAATTCTACCTGTCATGAAACCGCAAAGGCAAGCTCCGGGAAGGCC 909
 Db 301 GGCAGAGGAGCGGAATTCTACCTGTCATGAAACCGCAAAGGCAAGCTCCGGGAAGGCC 360
 QY 910 GATGSCACCAAGGAGTGTGTCAGTGGAGAACACTACACGCC 969
 Db 361 GATGGCACACAGGAGTGTGTCAGAAGGTTCTGGAGAACACTACACGCC 420
 QY 970 CTGATGCGGTAAGTACTCCGGCTGGTAGTGGCTAACCAAGAGGGGGCTAACCAAGAGGGGGCCGG 1029
 Db 421 CTGATGCGGTAAGTACTCCGGCTGGTAGTGGCTAACCAAGAGGGGGCCGG 480
 QY 1030 AAGGGCCCAGACCGGGAGAACCGAGCAGGAGCTTCAGTAAAGGCTACCCCAAG 1089
 Db 481 AAGGGCCCAGACCGGGAGAACGAGCAGGAGCTTCAGTAAAGGCTACCCCAAG 540
 QY 1090 GGGCAGCCGAGCTTCAGAAGGCCCTCAAGTACAGGAGCTGG 1149
 Db 541 GGGCAGCCGAGCTTCAGAAGGCCCTCAAGGAGCTGG 600
 QY 1150 ATCCGCCACACACCTGCTAGCCACACCCGCCGCGCCCTCAGGCGCCCTGGCA 1209
 Db 601 ATCCGCCACACACCCCTGGCACCCGCCGCGCCCTGGCA 659
 QY 1210 CACTACACTCCAGAACACTGCATCAGGGAAATTTCATGAAATAAGGAAGA 1269
 Db 660 CACTACACTCCAGAACACTGCATCAGGGAAATTTCATGAAATAAGGAAGA 708
 QY 1270 GCTCTATTGTCATGGTTAAAGAGAACAAACTGAACCAAACACTCTGGGG 1329
 Db 709 ----- 708
 QY 1330 GAGGGGTGAAAGGATTATTGTTGACTGAAACCCCGATGACAAGAACACTCACCA 1389
 Db 709 ----- 708
 QY 1390 AGGGACTGACTCAACCCAGGGCTTCTCTCTAGGACAGACACTCAACTC 1449
 Db 761 AGGGACTGACTCAACCCAGGGCTTCTCTCTAGGACAGACACTCAACTC 820
 QY 1450 GTCCCCAGAGGAGCTTGAATGAGAACCCACACTTGAAGAGGCCAAAGTCCTTTC 1509
 Db 821 GTCCCCAGAGGAGCTTGAATGAGAACCCACACTTGAAGAGGCCAAAGTCCTTTC 880
 QY 1510 CCAAGGTCTGAANGAAAAAA 1539
 Db 881 CCAAGGTCTGAANGAAAAAA 910

RESULT 6
 AAD07795 No. 2e-121; ID AAD07795 standard; cDNA; 917 BP.

AC	ADD07795;	QY	730 ACCAGTGGAAACACATTCCAGGTCCTCGGCCAGATCAGTGCCCGGGGAGGTGGG 789
XX			
DT	10-SEP-2001 (first entry)	Db	181 ACCAGTGGAAACACATTCCAGGTCCTCGGCCAGATCAGTGCCCGGGGAGGTGGG 240
DE	Human fibroblast growth factor (zFGF5) cDNA.	QY	790 GACAAGATGCCCCAGCTCTACTGGAGACAGACACCTTCGGTACGGTACGGGAGGAGTCAGTGCCCGGGGAGGTGGG 849
XX			
KW	Human; fibroblast growth factor-18; FGF-18; zFGF5; FGF receptor-2; FGF receptor-3; cytotoxin; cell proliferation inhibitor; tumour; multiple myeloma; bladder carcinoma; cervix carcinoma; cytostatic; thyroid carcinoma; osteosarcoma; ss.	Db	241 GACAAAGTATGCCAGCTCTACTGGAGACAGACACCTTCGGTACGGTACGGGAGGAGTCAGTGCCCGGGGAGGTGGG 300
KW		QY	850 GCGCAASGAGACGGAACTCTACCTGTCATGACCCGAAGGCAAGCTCGTGGGAAGGCC 909
XX			
OS	Homo sapiens.	Db	301 GCGCAAGGAGACGGAACTCTACCTGTCATGACCCGAAGGCAAGCTCGTGGGAAGGCC 360
XX		QY	910 GATGGACCAGGAAGGAGTGTGTGTCATCGAGAGGTTCTGGAGAACACTACAGGGCC 969
FH	Key	Location/Qualifiers	
FT	CDS	1..624	
FT		/tag= a	
FT	sig_peptide	/product= "Human fibroblast growth factor (zFGF5,"	
FT	1..81	/*tag= b	
FT	mat_peptide	82..621	
FT		/*tag= c	
FT		/product= "Human mature fibroblast growth factor (zFGF5)"	
XX		QY	970 CTTGAT3GGGTAAGTACTCCGGCTGTACCGTGGCTTACCAAGAAGGGGGGGGGGG 1029
PN	WO200139788-A2.	QY	1030 AAGGCCGCCAGACCCGGAGACCCGAGCAGCAGTCATGAGGGTACCCCAAG 1089
XX		Db	481 AAGGGCCCAAGCCGGAGAACACAGCAGAACACTGCATGAGGGCTACCCCAAG 540
PD	07-JUN-2001.	QY	1090 GGGCAGCGGAGCTTCTAGAACAGGTTCTAGAAGGAGGTCGG 1149
XX		Db	541 GGGCACCGGAGCTTCAGAACGCTTCAGAACAGGAGGTCGG 600
PF	28-NOV-2000; 20000WO-US32380.	QY	1150 ATCCGGCCACACACCCCTGCCTAGGGACCCCGCCCGCCGCCCCTCAGTCGC 1209
XX		Db	601 ATCCGGCCACACACCCCTGCCTAGGGACCCCGCCGCCCCTCAGTCGC 659
PR	02-DEC-1999; 99US-0452977.	QY	1210 CACTCCTACTCCAGAAAACCTGCATAGAGGAATAATAGGAAGAA 1269
XX	(ZYMO) ZYMOGENETICS INC.	Db	660 CACTCACACTCCAGAAAACCTGCATAGAGGAATAATAGGAAGAA 708
PI	West JW;	QY	1270 GCTCTATTTCATATGTTAAAGAGACAAACTGACCAAACACTTCGGGG 1329
XX	DR; P-PSDB; AAE04536.	Db	709 ----- 708
PT	Novel fibroblast growth factor targeting composition useful for inhibiting the proliferation of cells expressing FGF receptor 3 or FGF receptor 2 - Disclosure; Page 57-58; 62pp; English.	QY	1330 GAGGGGTGATAAGGATTATGTTACTTGAAACCCGATGACAAAGACTCAGCAA 1389
PT		Db	709 -----ATATGGATTATGTTACTTGAAACCCGATGACAAAGACTCAGCAA 760
PS	The present invention relates to methods for targetting cells that express fibroblast growth receptor-3 or -2. Fibroblast growth factor-18 (FGF-18) binds with FGF receptor-2 and -3. A targetting composition comprising FGF-18 component and cytotoxin, is useful for inhibiting the proliferation of cells that express FGF receptor-3 or -2, in a subject having tumour cells such as multiple myeloma, bladder carcinoma cells, cervix carcinoma cells, cells, osteosarcoma cells and intimal smooth muscle cells. The present sequence is a cDNA encoding human zFGF5 protein.	QY	1390 AGGGACTGTAGTCACCCACAGGTGTCCTCTCTAGGACACAACTCTAACCTC 1449
XX		Db	761 AGGGACTGTAGTCACCCACAGGTGTCCTCTAGGACACAACTCTAACCTC 820
CC		QY	1450 GTCGCCAGAGGAGGACTGTAAGGAGAACACCTTGAGAAGGCCAAACTCTTTC 1509
CC		Db	821 GTCGCCAGAGGAGGACTGTAAGGAGAACACCTTGAGAAGGCCAAACTCTTTC 880
CC		QY	1510 CCAAAAGTCGAAAGAAAAAA 1539
CC		Db	881 CCAAAAGTCGAAAGAAAAAA 910
SQ	Sequence 917 BP; 244 A; 258 C; 252 G; 163 T; 0 other;	RESULT 7	
Query Match	51.3%; Score 805.2; DB 22; Length 917;	AAS00951	
Best Local Similarity	91.6%; Pred. No. 2e-121; Length 917;	ID	AAS00951 standard; DNA; 917 BP.
Matches	907; Conservative 0; Mismatches 3; Indels 80; Gaps 2;	AC	AAS00951;
Matches	907; Conservative 0; Mismatches 3; Indels 80; Gaps 2;	XX	
Db	1 ATGATATCGGCCCTCCGCCCTCGCCCTGACTTGCTGTTACCTTCCTGCTGCTTC 60	DT	16-JUL-2001 (first entry)
QY	550 ATGATATCGGCCCTCCGCCCTCGCCCTCGCCCTGACTTGCTGTTACCTTCCTGCTGCTTC 609	XX	
Db	610 CAGGTACAGGCTGGTGTGGAGAGAACGTTCTCGCATCACGGAGAACAG 669	DE	Human DNA encoding a fibroblast growth factor homologue, zFGF-5.
QY	611 CAGGTACAGGCTGGTGTGGAGAGAACGTTCTCGCATCACGGAGAACAG 120	XX	
Db	670 AGCGGGCTCGGAGCATGGTGTGGAGAACGTTCTCGCATCACGGAGAACAG 729	KW	Human; fibroblast growth factor homologue; zFGF-5; plasmid construction; homologous recombination; ds.
QY	671 AGCGGGCTCGGAGCATGGTGTGGAGAACGTTCTCGCATCACGGAGAACAG 180	XX	
Db	121 AGCGGGCTCGGAGCATGGTGTGGAGAACGTTCTCGCATCACGGAGAACAG 180	OS	Homo sapiens.
XX		XX	

XX	(ZYMO) ZYMOGENETICS INC.	QY	1210 CACTCACACTCCAGAAACTGCATCAGGAGATAATTACATGAAATAAGGAGAA 1269
XX	West JW;	Db	634 CACTCACCCCCCAAGAGAACTACATCAGGAGATAATTACATGRAAAATAAGGAGAA 693
XX	WPI: 2001-417789/44.	QY	1270 GCTCTPATTTTGTACATGTTAAGAGAGAACAAACTGAACCAAACCTTGGGG 1329
DR	P-PSDB; AAE01537.	Db	694 TCTCTTATTTTGTACATGTTAAGAGAGAACAAACTGAACCTAAGTCCTGGAG 753
XX	Novel fibroblast growth factor targeting composition useful for inhibiting the proliferation of cells expressing FGF receptor 3 or FGF receptor 2	PT	1150 ATCCGGCCACACCCCTCCAGGCCACCCCTCAGTCAGGAGACAGAACCGG 1209
XX	Disclosure; page 59-61; 62pp; English.	PS	601 ATCCGGCCACACCCCTCAGTCAGGAGACAGAACCGG 633
XX	The present invention relates to methods for targetting cells that express fibroblast growth receptor 3 or -2. Fibroblast growth factor-18 (FGF-18) binds with FGF receptor-2 and -3. A targetting composition comprising FGF-18 component and cytotoxin, is useful for inhibiting the proliferation of cells that express FGF receptor-3 or -2, in a subject having tumour cells such as multiple myeloma cells, bladder carcinoma cells, cervix carcinoma cells, thyroid carcinoma cells, osteosarcoma cells and intimal smooth muscle cells. The present sequence is a cDNA encoding mouse zFGF5 protein.	PT	
XX	Sequence 1023 BP; 321 A; 253 C; 262 G; 187 T; 0 other;	SQ	
Query Match	47.0% ; Score 737.6; DB 22; Length 1023;		
Best Local Similarity	86.6%; Pred. No: 1.7e-110;		
Matches	885; Conservative 0; Mismatches 99; Indels 38; Gaps 5;		
QY	550 ATGATTCAGGCCCTCCCTGCACTTCCCTGTTACCTCCCTGCTGCTGCTC 609	QY	1390 AGGGACTGTAGTCACCCACAGGNGCTGCTGCTGCTGAGACAGCAACTTAACRC 1449
Db	1 ATGTTTACAGCCCTCCGCTGCACTTCTACCTTGCTGCTGCTC 60	Db	810 GGGGACCGCTGTCACCCACAGGNGCTGCTGCTGCTGAGACAGCAACTTAACRC 869
QY	610 CAGGTACAGGTGCTGGTGGCCGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 669	QY	1450 GTCCCCAGGGAGCACTTGTAGGAGAACCAACTTGTAGAGGAGCCAAAGTCCCTT-rr 1508
Db	61 CAGTTTACAGGTGCTGGTGGCCGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 120	Db	870 ATCCCGAGGAGGACTGTAGCAGAGGA-----ACTGGAGAACCCAAAGTCCTTCCC 923
OY	670 ACGGGGGCTGGGAGATGTGACCTGGCTGCTGGCCGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 729	QY	1509 CCCAAGGTCTGAAGGAKAAAAAAACAAAAAAACAAAAAAACAAAAAAACAAAAAAACAAAAAAAC 1568
Db	121 ATGGGGGCTGGGAGATGTGAGCTGGCTGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 180	Db	924 CCCAAGGTCTGAAGGAAACAAAAAAACAAAAAAACAAAAAAACAAAAAAACAAAAAAAC 983
OY	730 ACCAGTGGAAACACATCCAGTCGCTGGCCGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 789	QY	1569 AA 1570
Db	181 ACCAGTGGAAACACATCCAGTCGCTGGCCGAGGAGACGGTGAACCTCCGCACTCAGGTGAGAACAG 240	Db	984 AA 985
QY	790 GACAGTATGCCGCTCTAGTGGAGACAGAACCTTGGTAGTCAAGTCCGATCAG 849	RESULT 9	
Db	241 GACAGTATGCCGCTCTAGTGGAGACAGAACCTTGGAGTCAGTCGGATCAG 300	ID	ABL91718
OY	850 GGCAGGAGACGGGATTCTACTCTGCTGATGAAAGCGCAAAAGGCAAGCTGCTGGGAASGCC 909	ID	ABL91718 standard; DNA; 624 BP.
Db	301 GCAGGAGACAGATCTACTCTGCTGATGAAAGCGCAAGCTGCTGGGAAGGCC 360	AC	ABL91718;
OY	910 GATGGCACCCAGAGGAGCTGCTTCATGAGAGCTCTGGAGAACACTACACGCC 969	XX	
Db	361 GATGGTACTAGCAAGGAGCTGCTTCATGAGAGCTCTGGGAAGGCC 420	DT	28-MAY-2002 (first entry)
OY	970 CTGATGTCGCCAAGTACTCCGGCTGGACGGCTTACCCAGAAGGGGGCCGGG 1029	XX	
Db	421 CTGATGTCGCCAAGTACTCTGGTGGCTGGCTGG 480	XX	
OY	1030 AGGGCCCCAACAGACCCGGAGAACAGCAGGAGCTGCACTTCATGAAAGGGCTACCCCAAG 1089	XX	
Db	481 AGGGTCCCAAACCCGGAGAACCCAGCAGAGTCACTTCATGAAAGGGTACCCCAAG 540	PR	09-JAN-2001; 2001DE-1000586.
OY	1090 GGCGAGCCGAGCTTCAGAACGGCTTCAGTACAGCAGGGTCACTGG 1149	PA	DE10100586-C1.
Db	541 GAGACGGCGAGCTGCGAGGCTCAACATACACAGGATGGCTACCGGG 600	PD	11-RPR-2002.
QY	1150 ATCCGGCCACACCCCTCCAGGCCACCCCGCCGGCCCTCAGGTGCGCTGGCA 1209	XX	
Db	601 ATCCGGCCACACCCCTCCAGGCCACCCCGCCGGCCCTCAGGTGCGCTGGCA 633	XX	
CC	The invention relates to a method for inhibiting expression of a target gene (ABL91658 ABL91797) in a cell by introducing at least one oligoribonucleotide that has a double-stranded structure consisting of at most 49 sequential nucleotide pairs, with at least part of one strand complementary with the target gene and has at least one end a single-stranded segment of 1-4 nt. The method provides oligoribonucleotides for antisense inhibition of gene expression useful	PT	

CC	e.g. for treating tumours but the oligoribonucleotides may also be directed against genes present in pathogens (e.g. Plasmodium or viruses/virions, pathogenic on humans, animals or plants) or against cytokine. Id., developmental or prion genes. The method provides more effective inhibition of gene expression than use of known oligonucleotides, probably because the unpaired overhang increases stability and thus intracellular concentration.
XX	Sequence 624 BP; 142 A; 180 C; 197 G; 105 T; 0 other;
SQ	Query Match 39.7%; Score 624; DB 24; Length 624; Best Local Similarity 100.0%; Pred. No. 3.6e-92; Matches 624; Conservative 0; Mismatches 0; Indels 0; Gaps 0
OY	ATGTTATCAGCSCCTCGCCGCACTTGTGTTTACACTTCCTGCTGCTGCTC 609
Db	1 ATGTTATCAGCSCCTCGCCGCACTTGTGTTTACACTTCCTGCTGCTC 60
OY	CAGGTACGTTGGTGGGCCGAGGAGAACGTGGACTTCGCATCCACCTGGAGAACCG 669
Db	61 CAGGTACGTTGGTGGGCCGAGGAGAACGTGGACTTCGCATCCACCTGGAGAACCG 120
OY	ACGGGGGGCTGGGACGATGTGAGCGCTGAGCTGAGCTGCGCTGTACCTGCTGCTC 670
Db	61 ACGGGGGGCTGGGACGATGTGAGCTGAGCTGCGCTGTACCTGCTGCTC 729
OY	670 GACAAGATGCCGACGATGTGAGCTGAGCTGAGCTGCGCTGTACCTGCTGCTC 121
Db	730 ACCAGTGGAAACATCCAGCTCTGGCCCGAGGATGAGTGGCCGCCGAGGATGG 789
Db	181 ACCAGTGGAAACATCCAGCTCTGGCCCGAGGATGAGTGGCCGCCGAGGATGG 240
OY	GACAAGATGCCGACGATGTGAGCTGAGCTGAGCTGCGCTGTACCTGCTGCTC 790
Db	241 GACAAGATGCCGACGATGTGAGCTGAGCTGAGCTGCGCTGTACCTGCTGCTC 849
OY	850 GGCAGGGACGGAATTCTACCTGGTGCAGAACCCGAAGGCAAGCTGGTAGCAAGTCGGATCAAG 300
Db	301 GGCAGGGACGGAATTCTACCTGGTGCAGAACCCGAAGGCAAGCTGGTAGCAAGTCGGATCAAG 909
OY	910 GATGGCACCAGGAGGTGTTCATGGAGGGTCTGGAGAACACTACAGGCC 969
Db	361 GATGGCACCAGGAGGTGTTCATGGAGGGTCTGGAGAACACTACAGGCC 420
OY	970 CTGATGTOGCCATGACTCTCCGGTGGTAQGTGGCTTCAACAAAGAAGGGGGGGGGGG 1029
Db	421 CTGATGTOGCCATGACTCTCCGGTGGTAQGTGGCTTCAACAAAGAAGGGGGGGGGGG 480
OY	1030 AAGGGCCCCAACACCCGGAGAACCGAGGGAGGTGCAATTGAGGGCTACCCAAAG 1089
Db	481 AAGGGCCCCAACACCCGGAGAACCGAGGGCTACCCAAAG 540
OY	1090 GGGCAGCGGAGCTTCAGAGCCCTCAAGTACACGACGGTGCACAGAGGTCCGG 1149
Db	541 GGGCAGCGGAGCTTCAGAGCCCTCAAGTACACGACGGTGCACAGAGGTCCGG 600
OY	1150 ATCCGGCCACACCCCTGGCTAG 1.73
Db	601 ATCCGGCCACACCCCTGGCTAG 624
RESULT 10	
AAZ5050	
ID	AAZ50350 standard; cDNA; 688 BP.
XX	
AC	
XX	
AAZ50350;	
DT	
18-MAY-2000	(first entry)
DE	Human heart specific FGF-8b cDNA. (predetermined sequence).
XX	
KW	Human; heart specific fibroblast growth factor-8b; FGF-8b; secreted protein; angiogenesis; anti-angiogenesis; cell differentiation; diagnosis; prognosis; screening; treat; cancer; ischaemic heart disease; vascular; gene therapy; ds.

	XX	XX	OS	Homo sapiens.
Key			Location/Qualifiers	
PH	39..623		/tag=	
FT			/product=	"Heart specific fibroblast growth factor-8b"
FT			/tag=	a
sig-peptide			/tag=	b
FT			/tag=	120..620
mat_peptide			/tag=	c
FT			/product=	"Mature FGF-8b"
PT	XX	PN	W020005369-A2.	
XX	PD	03-FEB-2000.		
XX	XX	20-JUL-1999;	99WO-US12839.	
XX	PR	20-JUL-1998;	98US-0093397.	
XX	PR	10-SEP-1998;	98US-0150684.	
PA	XX	(CURA-)	CURAGEN CORP.	
PT	XX	Shimkets RA;		
XX	XX	WPI; 2000-182696/16.		
DR	XX	DR		
P-PSDB;	XX	AY44843.		
PT	XX	Novel angiogenesis and anti-angiogenesis secreted proteins used to control angiogenesis -		
XX	PS	Claim 15; Fig 3A; 32pp; English.		
CC	XX	The present sequence is a cDNA (predetermined sequence) encoding heart specific fibroblast growth factor-8b (FGF-8b), an angiogenesis/anti-angiogenesis secreted protein from human heart library.		
CC	XX	The protein exhibits angiogenic activity (either inducing or inhibiting) or cell differentiation activity.		
CC	XX	The present sequence can be used for diagnosis, prognosis, screening and treating diseases and disorders associated with aberrant levels of the secreted protein. The protein can be used to control angiogenesis e.g. in cancers, ischaemic heart and vascular diseases. The polynucleotide can also be used in gene therapy.		
CC	XX	Sequence 688 BP; 150 A; 209 C; 215 G; 113 T; 1 other;		
SO	XX	Query Match 39 %; Score 623.6; DB 21; Length 688; Best Local Similarity 98.0%; Pred. No. 4.2e-92; Matches 673; Conservative 0; Mismatches 10; Indels 4; Gaps 4;		
QY	512	GGCTGGGCGTAGAGGCCGCCTCCTCCGCCAGCGGAGTTCAGGTACAGGGCTGGTSCG	571	
Db	1	GGCTGGCGTAGAGGCCGCCCTCCGCCAGCGGAGTATCAGGCCCTCCGCC	60	
QY	572	GCACITGCCGTGTACACTCTGCTCTGCTCTCCAGGTACAGGGCTGGTSCG	631	
Db	61	GCACITGCCGTGTACACTCTGCTCTGCTCTCCAGGTACAGGGCTGGTSCG	120	
QY	632	AGGAGAACCTGGACTCCCATCCACGGAGAACCCAGCGGGCTGGGAGATGA	691	
Db	121	AGGAGAACCTGGACTCCCATCCACGGAGAACCCAGCGGGCTGGGAGATGA	180	
QY	692	GCCGTAAGGAGCTGGCTGTACAGCTACAGCCGGACAGGGAGATGGGACAAGTATGCCCAAGTCCTCPAG	811	
Db	181	GCCGTAAGGAGCTGGCTGTACAGCTACAGCCGGACAGTGGAAGAAGTATGCCCAAGTCCTCPAG	300	
QY	752	TCCCTGGGGCGCAGGATCAGTGCCGGGGAGGATGGGACAAGTATGCCCAAGTCCTCPAG	751	
Db	241	TCCCTGGGGCGCAGGATCAGTGCCGGGGAGGATGGGACAAGTATGCCCAAGTCCTCPAG	240	
QY	812	TGGAGACAGACACCTTCGGTAGTCAGTCGGGATCAAGGGCAAGGAGGGAACTCACC	871	

Db 301 TGGAGACAGACACCTTGGTAGTCAGTCGGATCAAGGGCAGAGGACGGAAATTCTAC 360
 QY 872 TGTCCATGACCGCAAAGCAAGCTCGGGGAGGCCATGGCACCGAACGGAGTC 931
 Db 361 TGTTCATGACCGCANAGCAACTCGGGGAAGGCCATGGCTGACGAGAACGGAGTC 420
 QY 932 TGTTCATGAGAAGCTCGGGAGAACCTACAGGGCTGTGTCGGCTAGTACTCG 991
 Db 421 TGTTCATGAGAAGCTCGGGAGAACCTACAGGGCTGTGTCGGCTAGTACTCG 480
 QY 992 GTGTGTGACTGTGCGCTTACCAAGAGGGCGCGCGSAGAGGCCCCAGACCGGGGGA 1051
 Db 481 GTGTGTGACTGTGCGCTTACCAAGAGGGCGCGCGSAGAGGCCCCAGACCGGGGGA 687
 QY 1052 ACCAGCAGGACGTCGATTCATGAAAGCGCTACCCCAAGGGCAACCGGGAGCT 1109
 Db 541 ACCAGCAGGACGTCGATTCATGAAAGCGCTACCCCAAGGGCAACCGGGAGCT 600
 QY 1110 GGCCTTCAAGTACAGGCGTCAAGGAGGTTCTAGAA 1168
 Db 601 GGCCTTCAAGTACAGGAGGCGTCCGGATCGGGCACACACCTG 660
 QY 1169 CCT-AGGCCACCCGGCCGCGGGCCCTC 1194
 Db 661 CTTAGGGCACCCGGCGGGGGCCCC 687
 RESULT 11
 AAZ46767
 ID AAZ46767 standard; cDNA; 621 BP.
 XX
 AC
 DT 31-MAR-2000 (first entry)
 XX
 DE Human fibroblast growth factor encoding cDNA.
 XX
 KW Fibroblast growth factor; tissue formation;
 KW lung tissue interference; human; ss.
 OS Homo sapiens.
 PN JP11332570-A.
 XX
 PD 07-DEC-1999.
 XX
 PR 27-MAY-1998; 98JP-0145478.
 XX
 PA (SHIO) SHIONOGI & CO LTD.
 DR WPI; 2000-091354/08.
 DR P-PSDB; AAY56817.
 XX
 PT A new fibroblast growth factor and a gene coding it - useful for prevention, treatment and diagnosis of tissue formation interference or treatment of lung tissue interference. The present sequence represents a human FGF encoding cDNA.
 XX
 PS Claim 1; Page 7-8; 16PP; Japanese.
 XX
 CC The invention provides fibroblast growth factor (FGF) proteins from human, rat and mouse. FGF is useful for prevention, treatment and diagnosis of tissue formation interference or treatment of lung tissue interference. The present sequence represents a human FGF encoding cDNA.
 XX
 SQ Sequence 621 BP; 140 A; 180 C; 196 G; 105 T; 0 other;
 Query Match 39.5%; Score 619.4; DB 21; Length 621;
 Best Local Similarity 99.8%; Pred. No. 2e-91; 1; Indels 0; Gaps 0;
 Matches 620; Conservative 0; Mismatches 0;
 QY 550 ATGTTTCAAGGCCCTCCGCACTTGCTGTTACACTCTCTGCTGCTGCTTC 609

Db 1 ATGTTTCTGGCCCTCCCGCTGACTTCCTGTTTACACTTCCTGCTGCTTC 60
 QY 610 CAGGTACAGGTGCTGTTGCTCCGAGGAGAACGGTGGACTTCGGCATCCACGGAGACCG 669
 Db 61 CAGGTACAGGTGCTGTTGCTCCGAGGAGAACGGTGGACTTCGGCATCCACGGAGACCG 120
 QY 670 ACGGGGCTGGGAGGAGGTGAGSGCGTAAGCAGCTGCGCTGTGACAGCG 729
 Db 121 ACGGGGCTGGGAGGATGTTGAGCCGTAGCAGTGTGGCTGTACCGACTACAGCCG 180
 QY 730 ACCAGTGGAAACACATCGAGTCCTGGCGCGAGGATCAGTGGCGCGAGATGG 789
 Db 181 ACCAGTGGAAACACATCCAGGTCTGGCCGAGGATCAGTGGCGCGAGATGG 240
 QY 790 GACAGTATGCCCAGCTCTAGTGGAGAGACACTGGTACAGTGGCGCGAGATGG 849
 Db 241 GACAGTATGCCCAGCTCTAGTGGAGAGACACTGGTACAGTGGCGCGAGATGG 300
 QY 910 GATGTCACAGCAAGGAGTGTGTTCTAGTGGAGAGACACTGGTACAGTGGCGCGAGATGG 969
 Db 361 GATGCCACAGCAAGGAGTGTGTTCTAGTGGAGAGACACTGGTACAGTGGCGCGAGATGG 420
 QY 970 CTGATGTGCGCTAAGTCTCGGCTGAGTGGCTTACCAAGAGGGGGCCCG 1029
 Db 421 CTGATGTGCGCTAAGTCTCGGCTGAGTGGCTTACCAAGAGGGGGCCCG 480
 QY 1030 AAGGCCCGAGACCCGGAGAACCCAGCAGGAGCTGCAATTTCATGAAAGGCTAACCCAG 1089
 Db 481 AAGGCCCGAGACCCGGAGAACCCAGCAGGAGCTGCAATTTCATGAAAGGCTAACCCAG 540
 QY 1090 GGGAGCCGAGCTTCAGAGGCCCTCAAGTACAGGACCTGGTACAGGAGCTGGCTG 1149
 Db 541 GGGCAGCCGAGCTTCAGAGGCCCTCAAGTACAGGACCTGGTACAGGAGCTGGCTG 600
 QY 1150 ATCCGGCCACACACCTGCC 1170
 Db 601 ATCCGGCCACACACCTGCC 621

RESULT 12
 AAZ46769
 ID AAZ46769 standard; cDNA; 621 BP.
 XX
 AC
 DT 31-MAR-2000 (first entry)
 XX
 DE Mouse fibroblast growth factor encoding cDNA.
 XX
 KW Fibroblast growth factor; FGF; tissue formation;
 KW lung tissue interference; mouse; ss.
 OS Mus sp.
 XX
 PN JP11332570-A.
 XX
 PD 07-DEC-1999.
 XX
 PR 27-MAY-1998; 98JP-0145478.
 XX
 PA (SHIO) SHIONOGI & CO LTD.
 DR WPI; 2000-091354/08.
 DR P-PSDB; AAY56819.
 XX
 PT A new fibroblast growth factor and a gene coding it - useful for prevention, treatment and diagnosis of tissue formation interference or treatment of lung tissue interference. The present sequence represents a human FGF encoding cDNA.

QY	1150	ATCCGGCCCAACACCCCTGCCC	1170
Db	601	ATCCCCCCTACCCGGC	621
RESULT 14			
ID	AAD07797	standard; cDNA; 621 BP.	
XX	AAD07797;		
DT	10-SEP-2001	(first entry)	
DE	Human fibroblast growth factor (zFGF5) cDNA, degenerate version.		
KW	Human; fibroblast growth factor-18; FGF-18; zFGF5; FGF receptor-2; FGF receptor-3; cytoxin; cell proliferation inhibitor; tumour; multiple myeloma; bladder carcinoma; cervix carcinoma; cytostatic; thyroid carcinoma; osteosarcoma; ss; Homo sapiens.		
OS	Homo sapiens.		
WO200139788-A2.			
PF	28-NOV-2000; 2000WO-US32380.		
PR	02-DEC-1999; 99US-0422977.		
PD	07-JUN-2001.		
PA	(ZYMO) ZYMOGENETICS INC.		
PA	XX		
PI	West JW;		
DR	XX		
XX	-		
PT	Novel fibroblast growth factor targeting composition useful for inhibiting the proliferation of cells expressing FGF receptor 3 or FGF receptor 2		
PT	Disclosure; Page 62; 62pp; English.		
CC	The present invention relates to methods for targetting cells that express fibroblast growth receptor-3 or -2. Fibroblast growth factor-18 (FGF-18) binds with FGF receptor-2 and -3. A targetting composition comprising FGF-18 component and cytoxin is useful for inhibiting the proliferation of cells that express FGF receptor-3 or -2, in a subject having tumour cells such as multiple myeloma cells, bladder carcinoma cells, cervical carcinoma cells, thyroid carcinoma cells, osteosarcoma cells and intimal smooth muscle cells. The present sequence is stated as encoding the human zFGF5 protein. This sequence is a degenerate version of that shown in AAD07795.		
CC	Sequence 621 BP; 123 A; 58 C; 103 G; 77 T; 260 other;		
SQ	Query Match 28.6%; Score 449.8; DB 22; Length 621; Best Local Similarity 58.2%; Pred. No. 4.9e-64; Matches 361; Conservative 152; Mismatches 107; Indels 0; Gaps 0; QY 550 ATGTTATCGCGCTCGGCCTGCGCTGCGACTTGCGTGTGTTACACTTCCTGCGCTGCGCTGCGTC 609 Db 1 ATGTAWSNGCNCONWSNCNTGTYACNTGTYTNGYYNCAYTNTINYNTIGY 60 1 ATGTAWSNGCNCONWSNCNTGTYACNTGTYTNGYYNCAYTNTINYNTIGY 60 610 CAGSTACAGGTGCTGGTGGCCGAGGAGACGTTGACTTCAGCTCACAGCGGG 729 Db 121 ACNMGNGCNMNGAYGAYGNTNWNSNGNARCACTNTMNTAYCARYNTAYWSNGN 180 61 CARGTNCARGTNTGNTGNGARGARAYGTTGNGAATCAGTGTGCGGGCGAGGATGG 730 ACCAGTGGAAACACATCAGGGCTGGCCGAGGATCAGTGTGCGGGCGAGGATGG 789		
QY	181 ACNWSNGNNAACRAYAATHCARGTNTYNGNGNMGNMATHOSNGCNGNGNGGARGAYGGN	240	
Db	790 GACAAGTATGCCAGCTCTAGTGGAGACAGACACCTCGCTGGTAGCAGTCGGGCAAG 849		
Db	241 GAYAARTAYGCNCARYTNTYNGTNGARACNGAYACNTTYGGNWSNCARGTNMGNATHAAR 300		
QY	850 GGCAAGAGGGAACTCTACCTGTCGACATGACCCAAAGCAACTCGGGAGGCC 909		
Db	301 GGNAARGARACNGARTTYTAYTNTYQATGAYGMENARGNAAARYTNTGNGNARACCN 360		
QY	910 GATGCCACCAAGGGTGTGTCATCGAGAACGTTGAGAACACTACAGGCC 969		
Db	361 GAYGGAACNNMSNAARGAARGYGTNTYATGARAATGNTNGARAYAATYACNG 420		
QY	970 CTGATGTCGCTAAGTACTCGGCTGAGTGGCTTCAAGAACAGAGGGCGGCC 1029		
Db	421 YTNATGWSNGCNAKTAIWSNGNTGTTAGTNGNTYACNAAARRGGNGNCCNMGN 480		
QY	1030 AGGGCCCAAGACGGGGGAACAGACAGGCTACAGCTACCCAG 1089		
Db	481 AARGNCCNARACNNGNARAAYCARCARGAYGTCAYTNTGARMNTAYCNAAR 540		
QY	1090 GGGCACCCGAGCTTCAAGAACCCCTCAAGTACAGGCGGTGACCAAGAGGTCCCGTGG 1149		
Db	541 GGNCARCCNCARYTNTGARACNTNTYARTAYACNNGNTNACNARHARMONWSNGNMGN 600		
QY	1150 ATCCGGCCACACACCTGC 1169		
Db	601 ATHMGNCNACNCAYCCNGC 620		
RESULT 15			
ID	AAV29636	standard; cDNA; 620 BP.	
XX	AAV29636		
AC	AAV29636;		
XX	-		
DT	24-SEP-1998 (first entry)		
DE	Degenerate sequence of fibroblast growth factor homologue zFGF-5.		
XX			
KW	Human; fibroblast growth factor homologue; zFGF-5; cardiac cell; antagonist; antibody; heart failure; stroke; hypertension; cancer; bone defects; arthritis; cardiac myocyte hyperplasia; ss; Homo sapiens.		
CC	Key CDS Location/Qualifiers 1..621 /*tag= a /product= "Fibroblast growth factor homologue zFGF-5"		
FT	W09816644-A1.		
XX			
PD	23-APR-1998.		
XX			
PF	16-OCT-1997; 97WO-US18635.		
PR	16-OCT-1996; 96US-0028646.		
XX			
PA	(ZYMO) ZYMOGENETICS INC.		
XX			
PI	Bukowski TR, Conklin DC, Deisher TA, Hansen B, Holderman SD;		
PI	Raymond FC, Sheppard PO;		
XX			
DR	WPI: 1998-251291/22.		
DR	P-REDB; RAW57413.		
XX			
PT	New fibroblast growth factor homologue, zFGF-5 - used to develop products for treating e.g. heart failure, stroke, hypertension, bone defects or cancers, arthritis, or wounds		
XX			
PS	Claim 2: Page 77, n 940: Polish		

XX
 CC this is the degenerate nucleotide sequence of the novel fibroblast
 CC growth factor homologue zgr-5, used in the method of the invention.
 CC The zgr-5 polypeptides can be used (optionally ex vivo) for enhancing
 CC the proliferation of cardiac tissue cells. The polypeptides, nucleic
 CC acids, antagonists, and antibodies can also be used in the treatment
 CC of disorders such as heart failure, stroke, hypertension, bone defects,
 CC cancer, arthritis, or wounds. The products can also be used in the
 CC study of cardiac myocyte hyperplasia and regeneration, to target
 CC delivery of agents to the heart and for detection and diagnosis. The
 CC recombinant cells can be used to produce the protein.

SQ	Sequence 620 BP; 121 A; 57 C; 104 G; 76 T; 262 other;
Query Match	27.4%; Score 429.8; DB 19; Length 620;
Best Local Similarity	57.3%; Pred. No. 8.3e-61;
Matches	355; Conservative 152; Mismatches 112; Indels 1; Gaps 1;
Oy	550 ATGTTATCAGGCCCTCCGGCTTGACTTGCGTGTGTTACACTTCGCTGCCTGGCTTC 609
Db	1 ATGTTATWSNGNCNCNNWSNGNCNTGTYACNTGTYTTGTYNCATYTYYTNNTWNTGTY 60
Oy	610 CAGGTACAGGCTCTGGTGCAGGAAACTGGACTTCGATCCACGGAGAAC 669
Db	61 CARGTNCARGTNYTNGCNGARGARAYINGNA-YTVMGNATHGAYGTINGNARARCAR 119
Oy	670 AGCGGGCTCGGAGCTGGCGCTGGCGCTGGCGAGCTGGCTGAGCTCTACACCGG 729
Db	120 ACNMGNCNMNGANGAYGAYGTNWNSNMGNACRKYTNMNTYACRYTNAYWSNMGN 179
Oy	730 ACCAGGGAAACACATCCAGTCCAGTCCAGGAGCAGCACCTTCGGTAGCTCAAGTCCGGATCAAG 789
Db	180 ACNWSNGNAACTCATATHCARGTNYTNGGNGNMGNATHWSNGCNMNGNGARGAYGGN 239
Oy	790 GACAAGTATGCCAGTCCTAGTGGAGACAGACACCTTCGGTAGTCAGTCAGTCCGGATCAAG 849
Db	240 GAYAARTAYGCNCARYTNYTNGTNGARACNGAYACNITYGGWSNCARGTNMGNATHAAR 299
Oy	850 GCGAAGGAGACCGAATTCTACCTGTGCGATGACCGAAAGGCCAAGCTGTCGGGAGCC 909
Db	300 GGNAARGARAGNCARYTNTYACVNTGATGMGNAMRGGNAAARTNGNGNARCCN 359
Oy	910 GATGGCACCAACGAGGTGTTGTCATCGAGAAGGTCTGGAGACACTACAGGCC 969
Db	360 GAYGGNACNWSNAARGARTGTYGNTNTYATHGARAARGTNINTNGARAYAAYTAYACNGCN 419
Oy	970 CTGAGTCGCTTAAGTACTCGGCGGGTTACCAACAGAGGGCGCGCG 1029
Db	420 YTNATGWSNGNUNAARTAYWSNGNTGTYGTTGNGNTTYACNAAARARGGMNGNCNMGN 479
Oy	1030 AGGGCCCCAGACCGGGAGACCGACGGAGCAGGAGCTACCCCAAG 1089
Db	480 AARGGNCCNAAARACNGNARAYCARCARGAAGTCAGTCAACGNTYACARMNTYCCNAAR 539
Oy	1090 GGCACCGGGAGCTCAGAACCCCTCAAGTACACACAGGGACCGAGTCCGGT 1149
Db	540 GGNCARCGNARAYTNCARARCCNTYAAKTAIYACNACNGTNACNAAARMGNWSNMGN 599
Oy	1150 ATCCGCCAACACACACCTGC 1169
Db	600 ATHMGNOCNACNCACNCAC 619

Search completed: April 1, 2003, 16:27:16
 Job time : 276 secs